# User Manual for

DM800 ECDIS hardware

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# 1 Scope and purpose

User manual for DM800E ECDIS

## 1.1 References

9301584 User Manual for Dolphin ECDIS

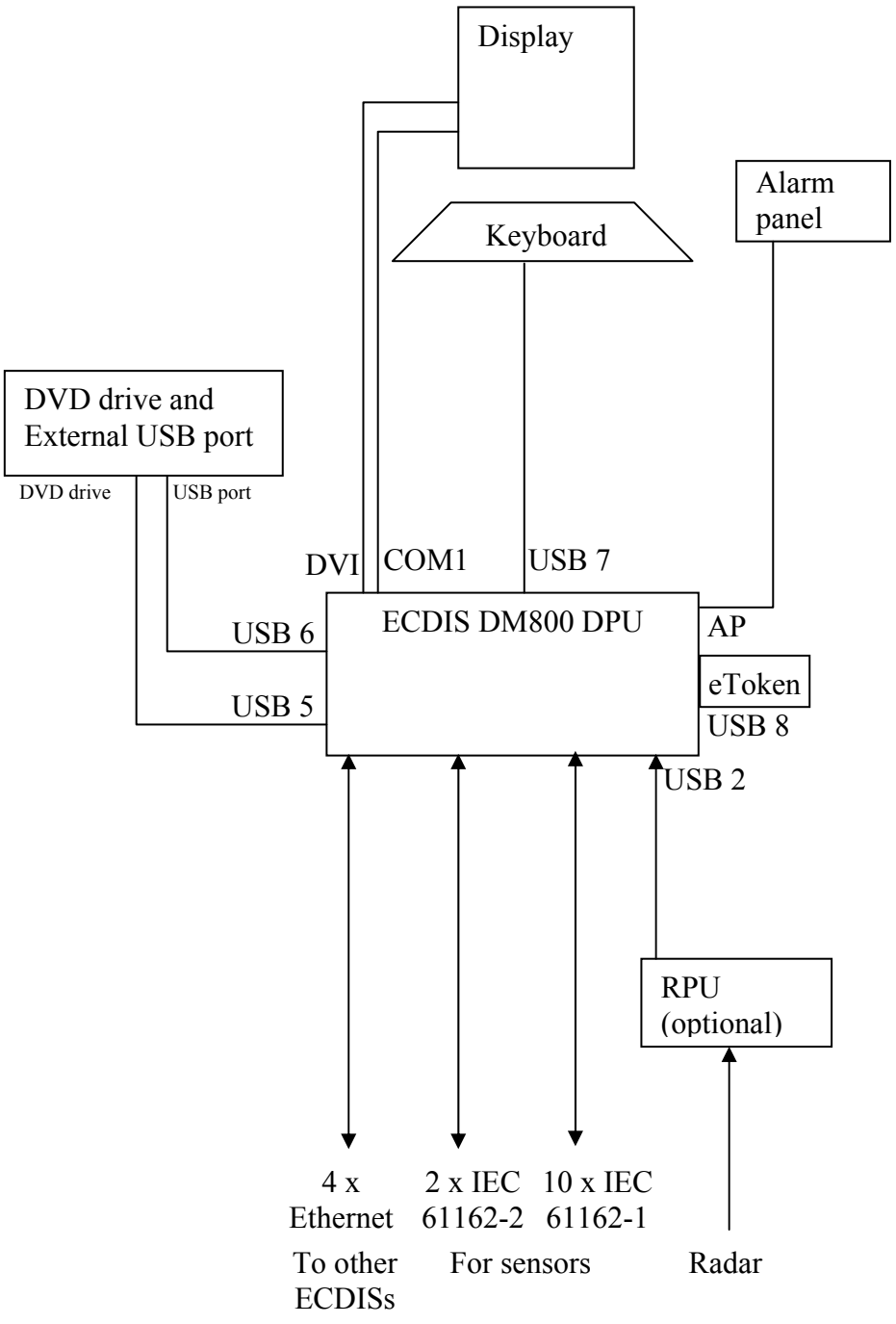
## 1.2 Terms and Abbreviations

ECDIS Electronic Chart Display and Information System

# 2 System overview for DM800E

## 2.1 System overview

One ECDIS consists of the following parts:



### 2.1.1 DPU (Data Processing unit)

The data processing unit contains the computer for the ECDIS application and a communication front-end. The DPU is installed in the main cabinet. For more information consult section 6.

### 2.1.2 DVD drive and External USB port

The DVD drive and external USB port is installed in the main cabinet. These are used for updating charts and software. Notice, charts can be updated using the Internet.

### 2.1.3 eToken

The eToken contains the keys needed for enabling access to charts. The eTokens for one installation (i.e. vessel/cluster) shall be regarded as at set and must not be mixed with eTokens from another installation.

### 2.1.4 RPU (Radar processing unit)

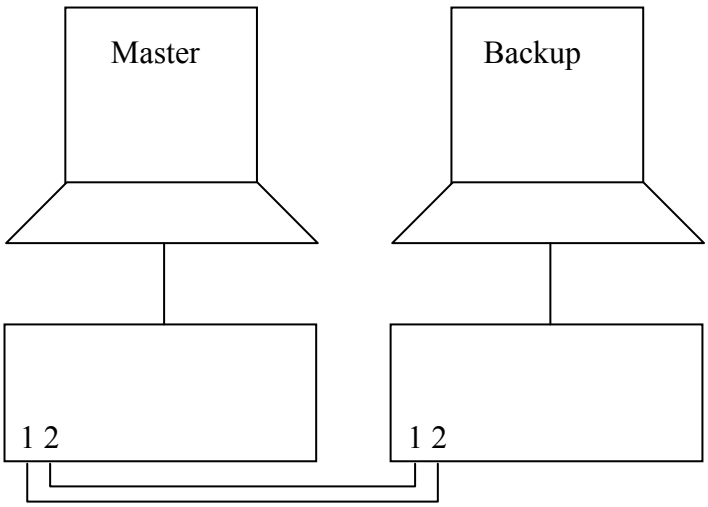
The RPU is an optionally interface to the vessels radar. When installed, radar overlay on the charts can be displayed. The RPU is installed in the main cabinet.

### 2.1.5 Alarm panel

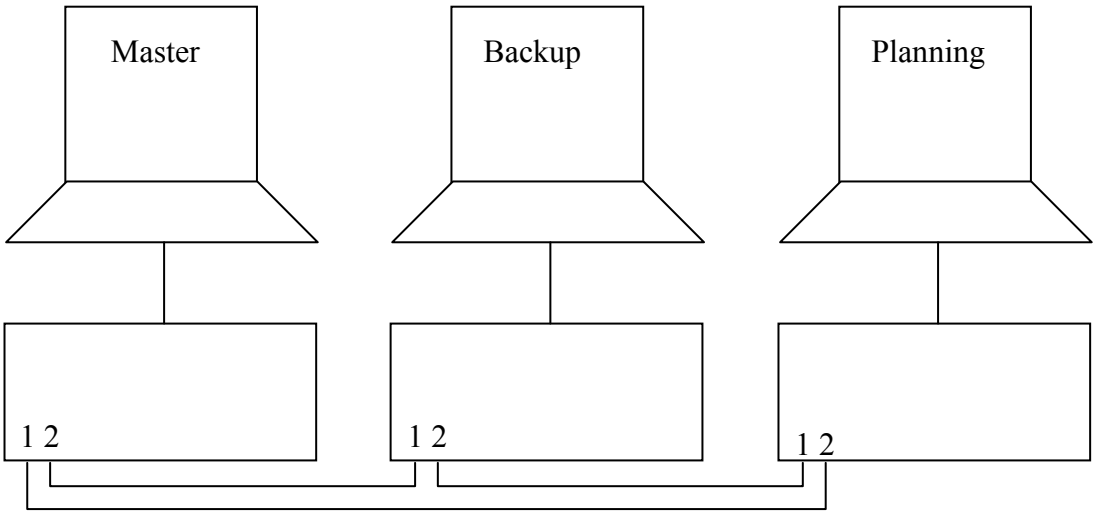
The ECDIS alarm panel is a small box that must be installed adjacent to the monitor. Consult section 3

## 2.2 ECDIS cluster

A complete ECDIS installation will in most cases consist of a number of systems (a cluster). In order to ensure redundancy each ECDIS must be connected to two other systems if the cluster contains more than two systems.

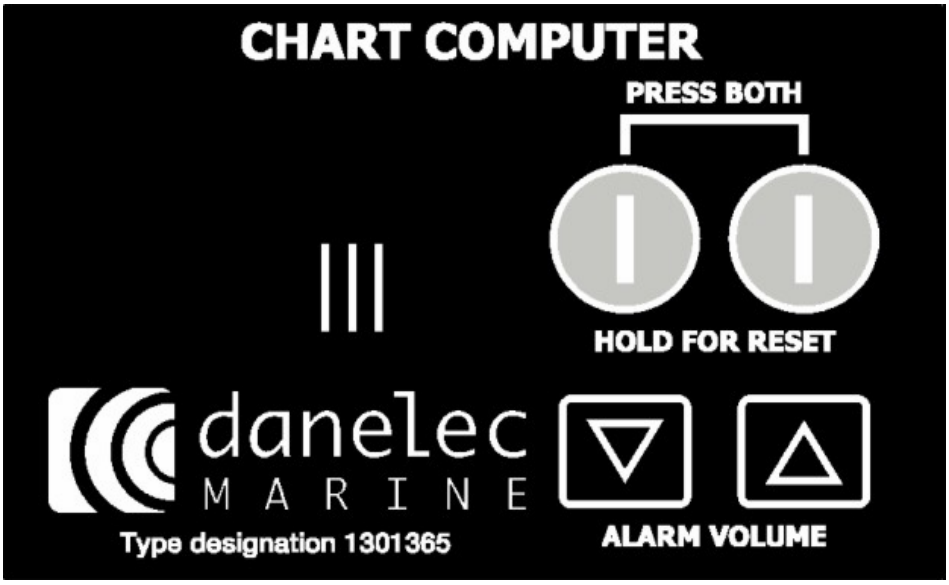



Cluster containing two ECDISs




Cluster with three ECDISs

# 3 Alarm panel




The ECDIS alarm panel is a small box adjacent to the monitor.

## 3.1 Alarm volume

The ECDIS will generate an audible alarm following an error e.g. if the signal from the GPS is lost. The volume of the alarm signal may be adjusted pressing the buttons marked “Alarm volume”.

## 3.2 ECDIS computer shut down

Notice! The procedure described in this section is only applicable if the ECDIS application freezes or stops responding to user input. The normal procedure for closing the ECDIS application (i.e. setting the ECDIS standby) is to click on ☒ in the right top corner.

Press the two reset buttons simultaneously for approximately 5 seconds in order to shut down the computer for the ECDIS application.

## 3.3 ECDIS computer restart

Press the two buttons simultaneously in order to restart the computer. This is applicable both after a “hard” shutdown (see section 3.2) or if the ECDIS is standby after the application is closed normally.

# 4 Monitor

## 4.1 Control panel on monitor

Under normal operating conditions do not change the monitor settings except for brightness which is controlled by the adjusting knob. Please notice that the monitor is not calibrated unless the white line on the knob is facing up (12 o'clock).
The monitor can be reset to calibrated state (expect for brightness control) by reverting to factory settings (consult the manual for the monitor).

## 4.2 Control of Monitor

The color generating capability of the monitor may deteriorate over time. How the quality of the monitor is checked is described in p/n 9301584 "User Manual for Dolphin ECDIS" in the section named "Color Differentiation Test".

# 5 Self test

The presence of the DVD drive, keyboard, Trackball, eToken and optionally the RPU is checked by the DPU. An alarm will be generated if an error on one of these devices is detected.

## 5.1 Buzzer in alarm panel

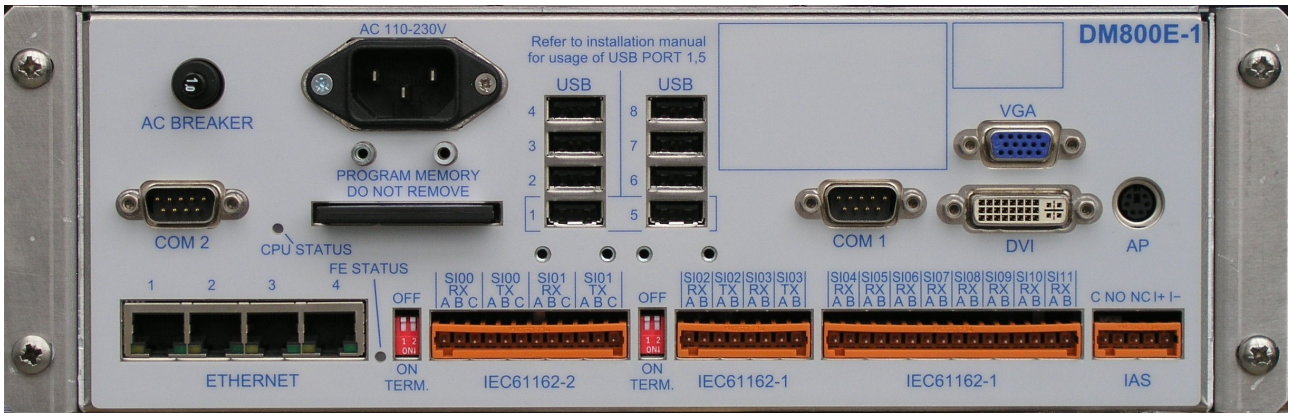
The buzzer in the alarm panel may be checked by pressing volume up or down. The alarm will sound shortly at the current audio level if one of the buttons is pressed shortly.

## 5.2 Test of monitor

Check the colors and the contrast for the monitor (visual), if in doubt consult section 4.2.

# 6 ECDIS data processing unit (DPU)

DPU front panel:




## 6.1 AC breaker

The ECDIS DPU is protected by electronic circuits and a resettable breaker. The breaker will pop out if one of the following events happens

Over voltage
Permanent under voltage
Excessive input current
Internal power supply failure

It is safe to push the breaker in if popped out (if it pops out right away wait at least one minute before pushing it in aging)

## 6.2 Status LEDs

### 6.2.1 CPU status LED

**Off:** The computer for the ECDIS application is standby or without power. If the "FE status LED" is turned off then check the power breaker (must be pressed in). After this check the presence of power.

**Green** (normal operation)**:** The computer for the ECDIS application is powered on and is probably operating normally.

**Blue flash** (normal operation)**:** Disk activity.

**Green blinking (1Hz):** Error on DVD drive, keyboard or Trackball.

**Red/yellow:** The computer for the ECDIS application did not start.

### 6.2.2 FE status LED

**Off:** The AC power is not present or the AC breaker is disconnected (popped out).

**Green** (normal operation)**:** The FE is started and has detected that the computer for the ECDIS application is responding.

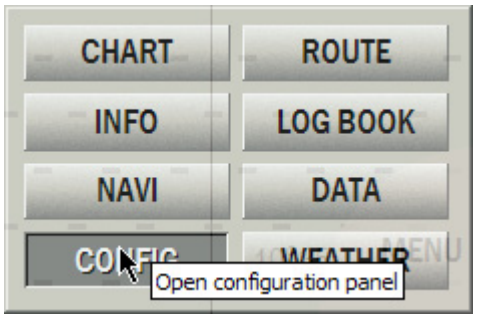
**Red:** Booting (not ready). If the Red LED is turned on for more than 60 second, close the application normally. If this is not possible use the alarm panel (se section 3.2).
After that, restart the ECDIS by switching the AC power off and on (operate the AC breaker next to the AC input plug).

**Blue:** The computer for the ECDIS application is not responding. Switch the power off and then on (operate the AC breaker) if this condition remains for more that 6 minutes.

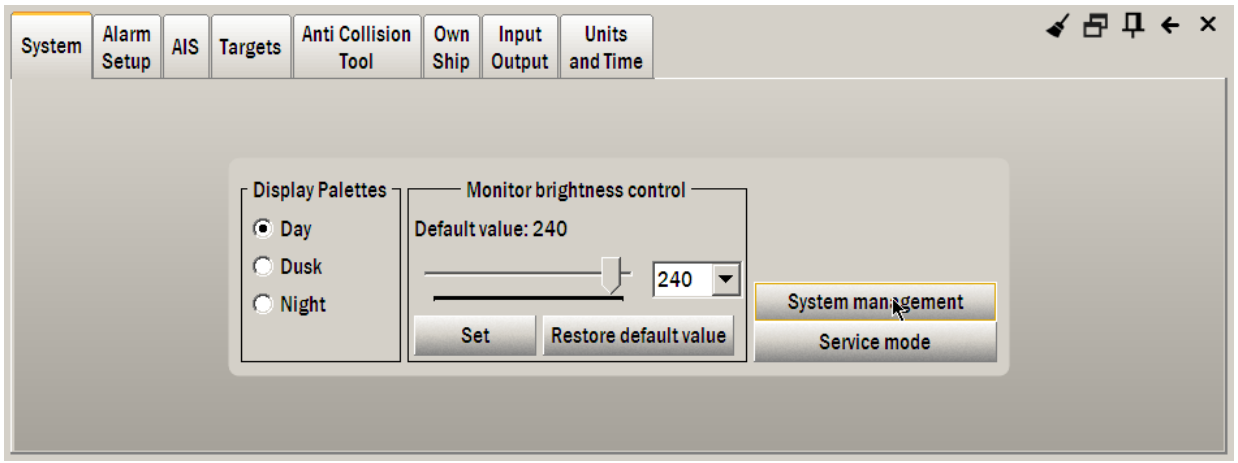
# 7 System Management Panel

The ECDIS includes a System Management panel for performing special non standard tasks.
**Notice: The System Management Panel should be used only by personal with prober authorization, as incorrect use may result in loss of chart licenses.**

The System Management Panel is opened from ECDIS application. Move the cursor to the right bottom corner on the chart and this box will appear.



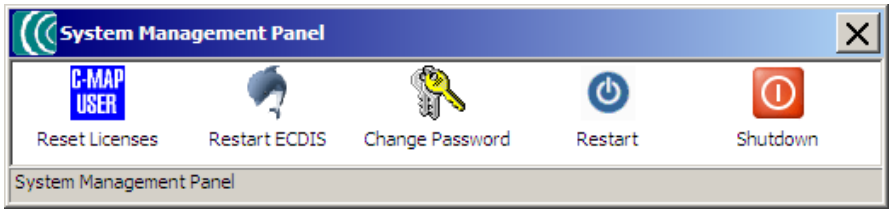

Click on Config




Select the system tab and click on “System Management”

You will be prompted for a password
The default password is: system manager

## 7.1 System Management Panel



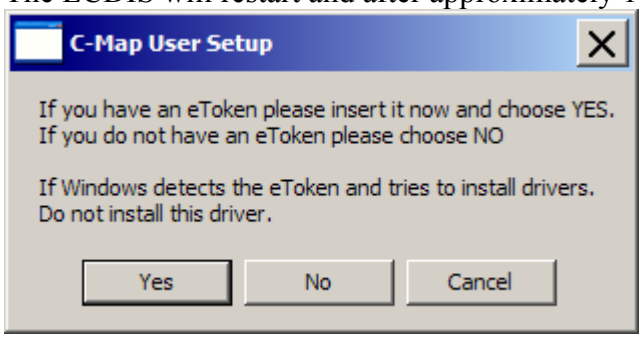

Notice: Double click on the icons to execute the programs.

- Reset Licenses: This is needed if a new eToken is installed, consult section 7.2 (Requires restart)
- Restart ECDIS (application)
- Change Password: Change the System Management password.
- Restart: ECDIS computer restart - this will not affect the front-end.
- Shutdown: ECDIS computer shutdown - this will not affect the front-end.

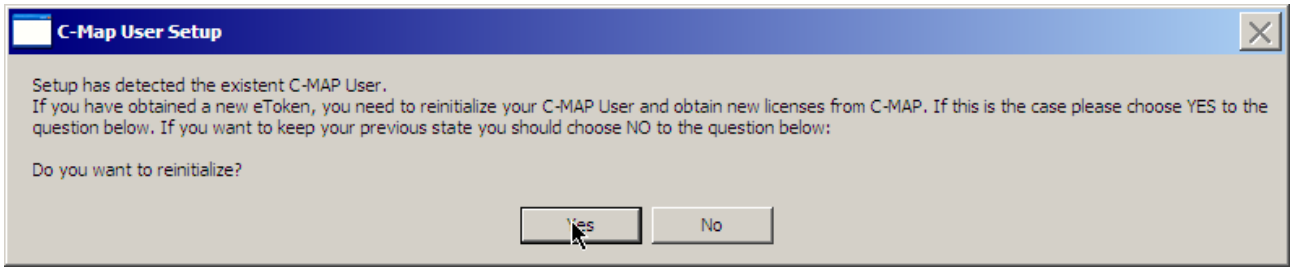
Use the [ X ] to close the panel.

## 7.2 Re-initialization of the eToken

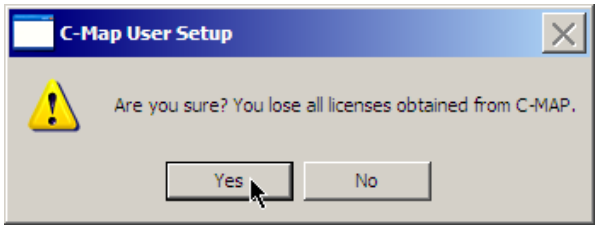
The ECDIS will restart and after approximately 1 minute the following image will be shown.


C-Map User Setup
If you have an eToken please insert it now and choose YES.
If you do not have an eToken please choose NO
If Windows detects the eToken and tries to install drivers.
Do not install this driver.
Yes
No
Cancel

Insert the new eToken for the ECDIS in USB port 8 on the DPU, and click on “Yes”. (The driver is already installed)

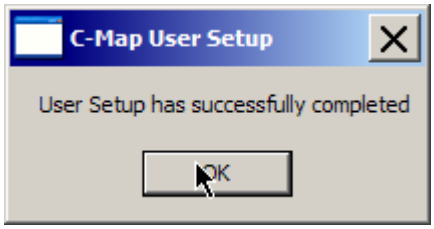

C-Map User Setup
Setup has detected the existent C-MAP User.
If you have obtained a new eToken, you need to reinitialize your C-MAP User and obtain new licenses from C-MAP. If this is the case please choose YES to the question below. If you want to keep your previous state you should choose NO to the question below:
Do you want to reinitialize?
Yes
No

Click on “Yes”.




Click on “Yes”.

After a few second the eToken has been reinitialized.




Click on “OK”.